

# CERRO COPPER & BRASS COMPANY

DIVISION OF CERRO CORPORATION

## INTERNAL MEMORANDUM

OTHER ADDRESSEES - FOR INFORMATION

CC: J. W. Goldenberg

File ~~3004~~

110Y

154056

Form HQ-10

SHOW NAME, TITLE AND CORPORATION OF ADDRESSEE AND ADDRESSOR

TO: Paul Tandler

DATE: July 16, 1970

FROM: Bill Graff

SUBJECT: DEEP WELL

Attached is a copy of the results of the test drilling made by Luhr Bros. on 7/10/70. Based on these results, the recommendation is made by both Luhr Bros. and the Testing Lab that a 30' long screen be installed instead of the proposed 20'. Obviously this will give us considerably greater potential capacity and greater life expectancy for this well.

I talked to Mr. Goldenberg who feels as I do that we should spend the additional \$920. (\$92./ft. as called out in the proposal) for this extra capacity.

Mr. Fellenstein feels that it would be a shame not to take full advantage of the water bearing strata located.

We should like to have your approval so that the screen can be ordered immediately.

Bill Graff

BG/as

Enclosure

Approved - 7/16/70  
H

C03339



**JOHNSON** DIVISION

315 NORTH PIERCE STREET • ST. PAUL, MINNESOTA 55104 • TELEPHONE (612) 646-1341

July 13, 1970

Mr. Urban Fellenstein  
Luhr Bros., Inc.  
P. O. Box 48  
Columbia, Illinois 62236

Dear Fellie:

Thank you for sending us sand samples and geological data from a test well you are drilling for Cerro Copper & Brass Company, East St. Louis, Illinois.

We are enclosing copies of our sand analysis curves for your information, depicting the gradation of the formation samples submitted.

On the basis of this information our recommendation is the utilization of a #100 (0.100-inch) slot well screen with a No. 3 gravel pack material from Northern Gravel Company of Muscatine, Iowa.

Good well design dictates that for maximum efficiency from a water table well from one-third to one-half the aquifer thickness be screened. With the aquifer reported to be 75 feet thick at this location, the correct screen length for this installation should be a minimum 25-foot long and preferably 30 feet long.

A 16-inch telescope size #100 slot stainless steel well screen would have the hydraulic capabilities of transmitting 45 gpm through the screen body per foot of screen length at our recommended design velocity of 0.1 foot per second.

On the basis of the estimated permeability of the formation, the expected specific capacity of this well is in the range of 75 to 100 gpm per foot of drawdown.

Thank you again for allowing us to make this recommendation to you. If we can be of further help in any way kindly let us know.

Very truly yours,

*Bill Anderson*

Bill Anderson  
Regional Sales Manager

C03340

Enclosure

U N I V E R S A L O I L P R O D U C T S C O M P A N Y

RECEIVED

JUL 14 1970

# UOP JOHNSON DIVISION

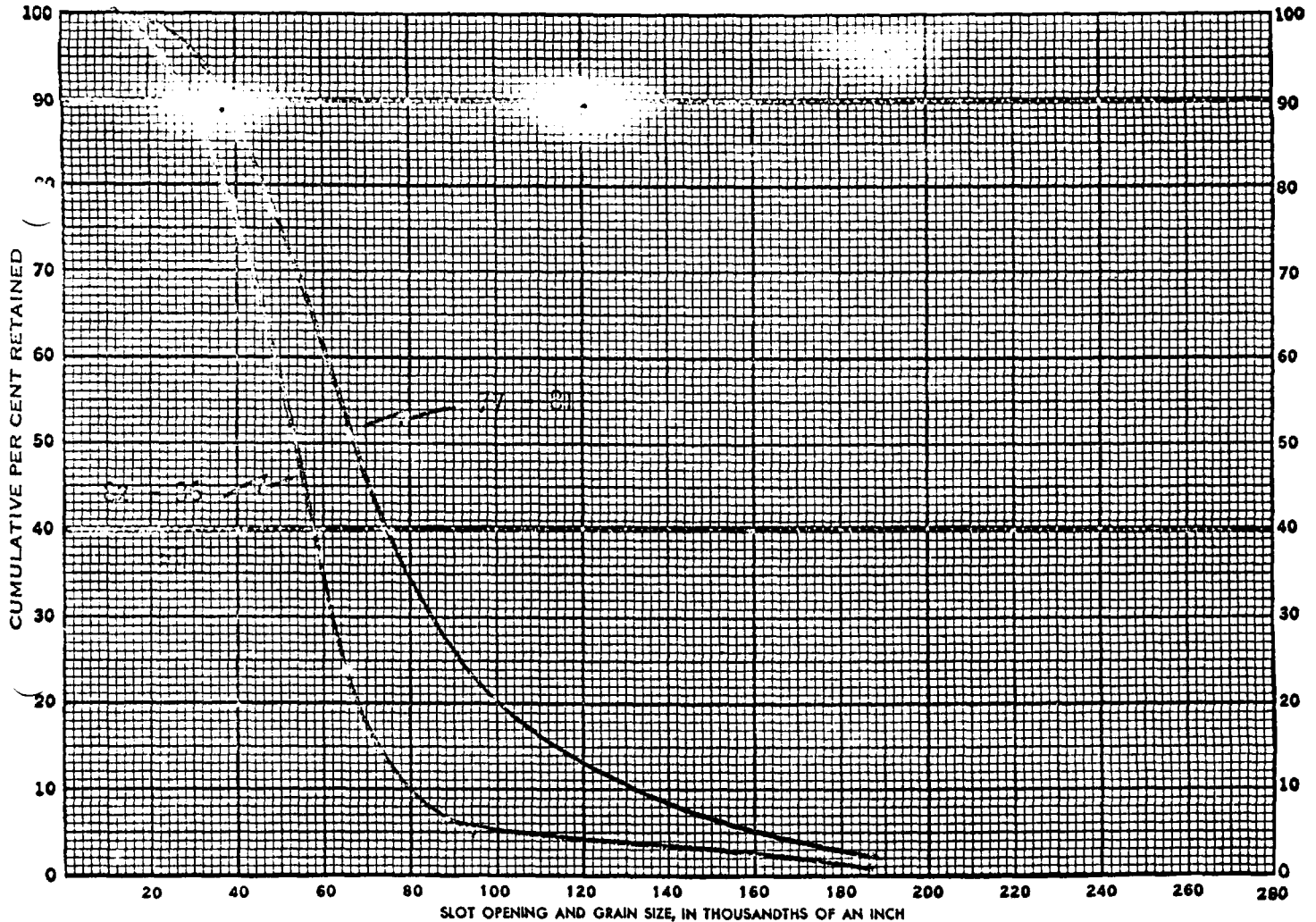
315 North Pierce Street  
Saint Paul, Minn. 55104

Sample sent in by Luhr Bros.

Town Columbia State Ill. Date 13 July 1970

From well of Cero Brass, East Saint Louis, Mo.

Remarks Did Not Test 22' to 76'



C03341

SIEVE OPENINGS	CUMULATIVE PER CENT RETAINED	
	82-86	77-81
.250		
.187	1	2
.132		
.094	5	23
.066	24	51
.047	38	77
.033	46	94
.023	49	98
SCREEN SLOT		

Notes: \_\_\_\_\_

Recommended Slot Opening: No. 100 (0.100-inch)  
with No. 3 Muscatine Material

Recommended Screen: Dia. \_\_\_\_\_ in. Length \_\_\_\_\_ Ft.

By: WLA

RECEIVED

SO MANY CONSIDERATIONS ENTER INTO THE MAKING OF A GOOD WELL THAT, WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

# UOP JOHNSON DIVISION

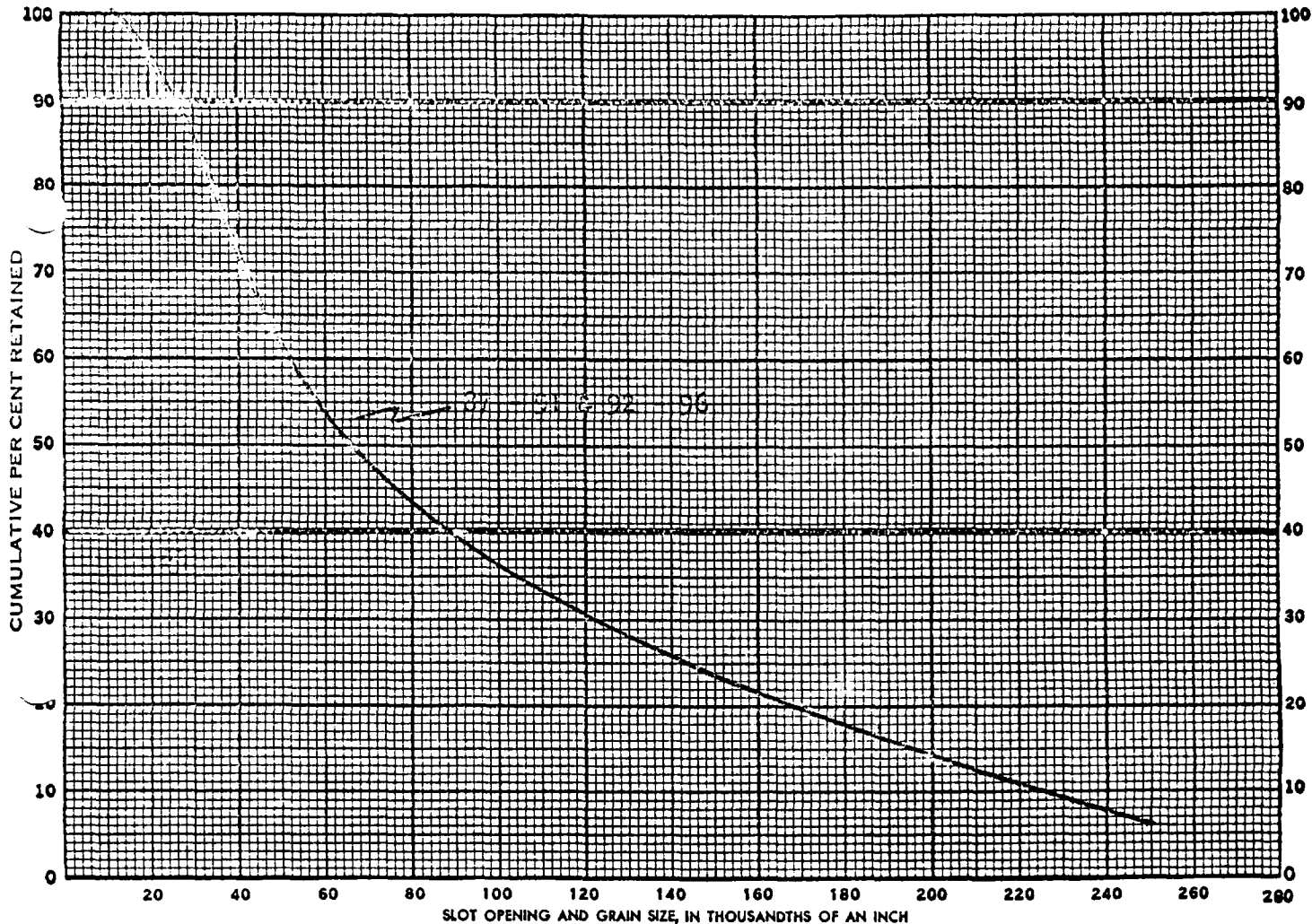
315 North Pierce Street  
Saint Paul, Minn. 55104

Sample sent in by \_\_\_\_\_

Town \_\_\_\_\_ State \_\_\_\_\_ Date 13 July 1970

From well of Cero Brass

Remarks \_\_\_\_\_



C03342

SIEVE OPENINGS	CUMULATIVE PER CENT RETAINED		
	87-96		
.250	6		
.187	17		
.132			
.094	38		
.066	50		
.047	63		
.033	82		
.023	93		
SCREEN SLOT			

Notes: \_\_\_\_\_

Recommended Slot Opening: \_\_\_\_\_

Recommended Screen: Dia. \_\_\_\_\_ in. Length \_\_\_\_\_ Ft.

By: \_\_\_\_\_

SO MANY CONSIDERATIONS ENTER INTO THE MAKING OF A GOOD WELL THAT, WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

# UOP JOHNSON DIVISION

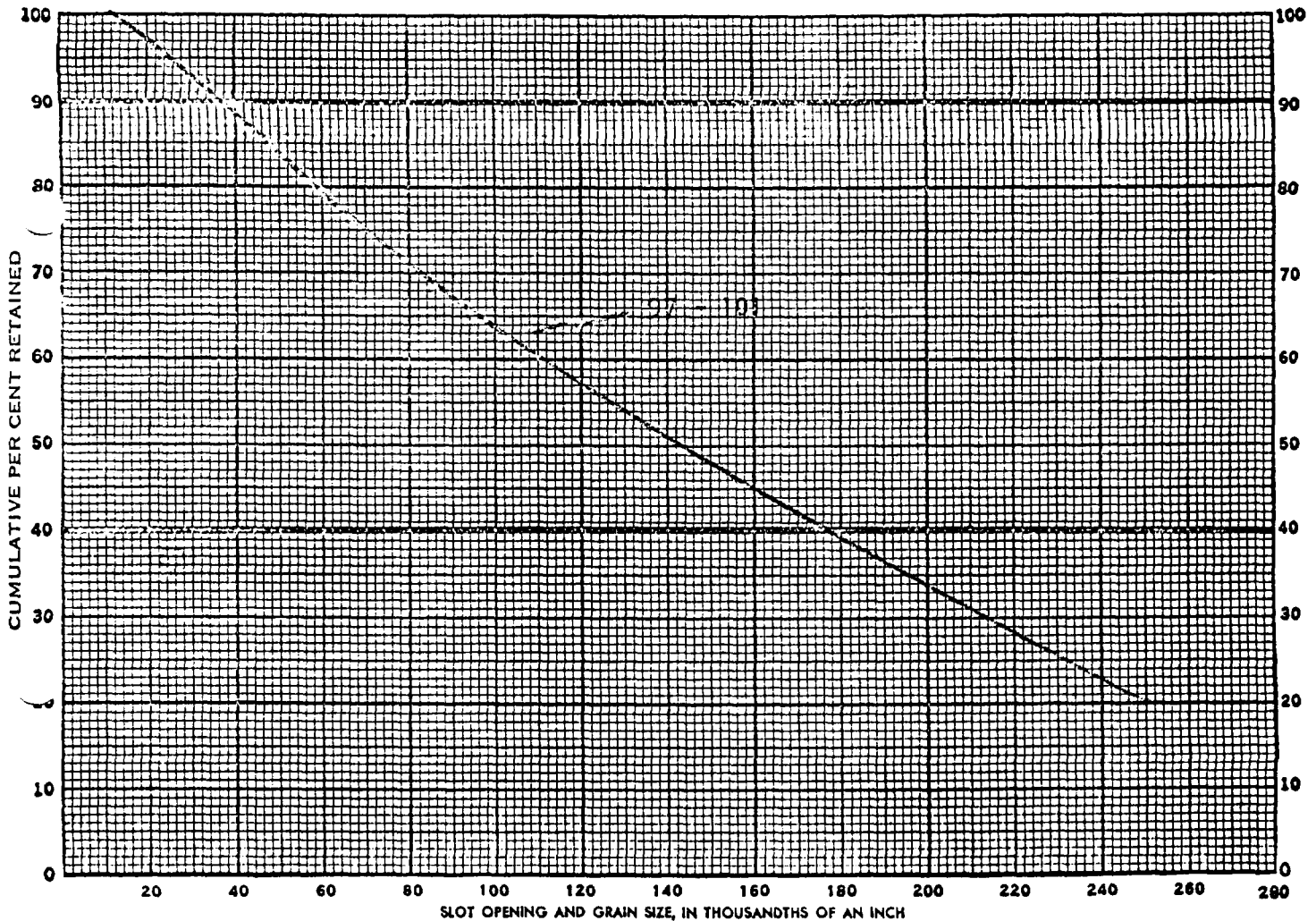
315 North Pierce Street  
Saint Paul, Minn. 55104

Sample sent in by \_\_\_\_\_

Town \_\_\_\_\_ State \_\_\_\_\_ Date 13 July 1970

From well of Cero Brass

Remarks \_\_\_\_\_



C03343

SIEVE OPENINGS	CUMULATIVE PER CENT RETAINED		
	77-101		
.250	20		
.187	37		
.132			
.094	65		
.066	76		
.047	85		
.033	92		
.023	95		
SCREEN			
SLOT			

Notes: \_\_\_\_\_

Recommended Slot Opening: \_\_\_\_\_

Recommended Screen: Dia. \_\_\_\_\_ in. Length \_\_\_\_\_ Ft.

By: \_\_\_\_\_

SO MANY CONSIDERATIONS ENTER INTO THE MAKING OF A GOOD WELL THAT, WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

# UOP JOHNSON DIVISION

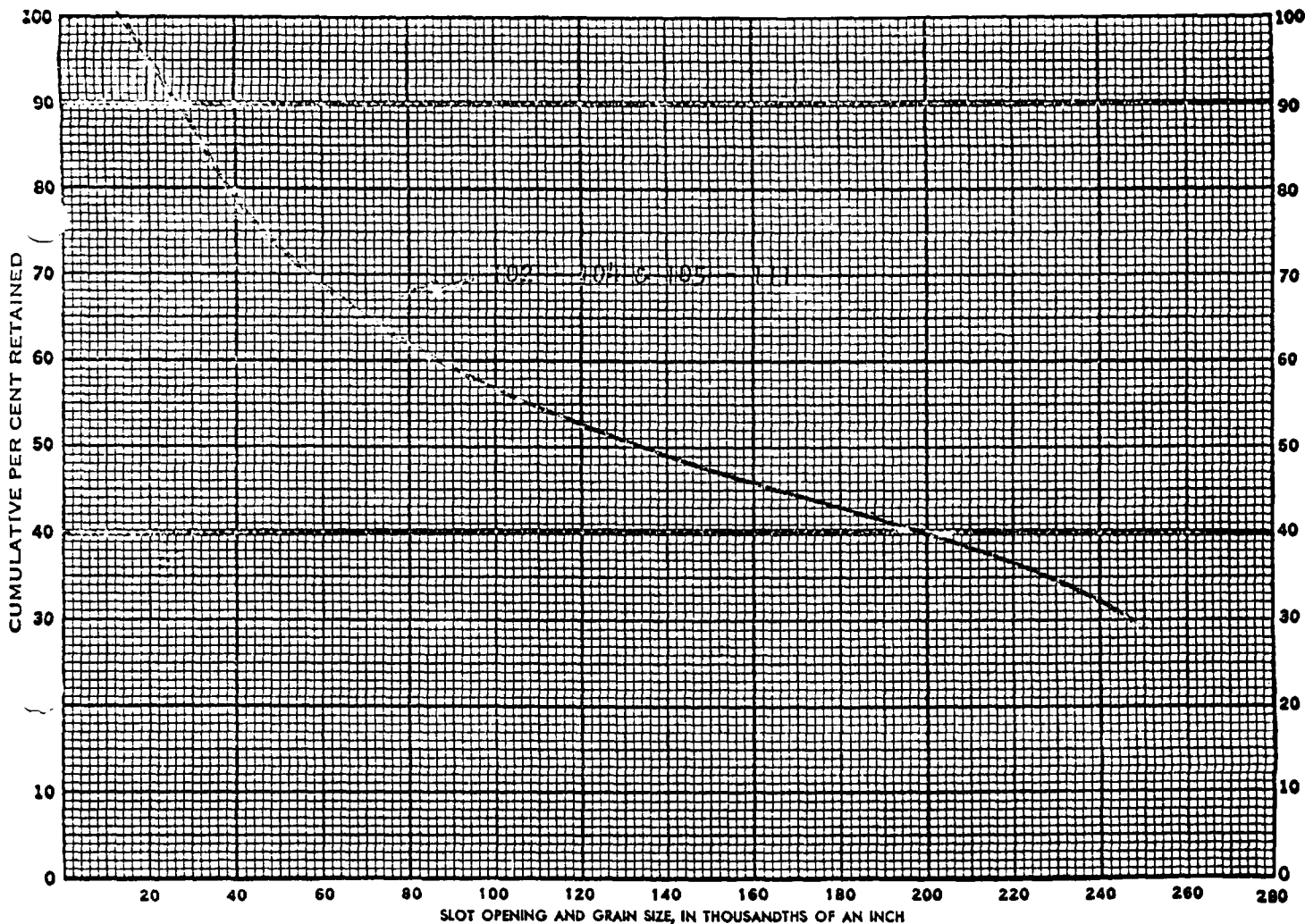
315 North Pierce Street  
Saint Paul, Minn. 55104

Sample sent in by \_\_\_\_\_

Town \_\_\_\_\_ State \_\_\_\_\_ Date 13 July 1970

From well of Cero Brass

Remarks \_\_\_\_\_



C03344

SIEVE OPENINGS	CUMULATIVE PER CENT RETAINED		
.250	102-111		
.187	42		
.132			
.094	58		
.066	66		
.047	75		
.033	85		
.023	93		
SCREEN			
SLOT			

Notes: \_\_\_\_\_

Recommended Slot Opening: \_\_\_\_\_

Recommended Screen: Dia. \_\_\_\_\_ in. Length \_\_\_\_\_ Ft.

By: \_\_\_\_\_

SO MANY CONSIDERATIONS ENTER INTO THE MAKING OF A GOOD WELL THAT, WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS